Connecticut and Hudson Valleys, as well as its absence in the higher mountains of Vermont and New Hampshire, points to the same conclusion. South of New England and New York it spreads, like a great many other species, into the northern extensions of the Carolinian. In all probability it will be shown to belong to a distribution-group which is typified by Lycopodium complanatum var. flabelliforme, Populus grandidentata, Quercus coccinea, Q. bicolor, Pyrola americana.

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.

# REPORTS ON THE FLORA OF THE BOSTON DISTRICT,—XVII.

#### GRAMINEAE.

# ECHINOCHLOA.

- E. COLONA (L.) Link. Cotton waste from mill, Malden (F. S. Collins, Aug. 19, 1888, specimen in herb. Yale University).
- E. CRUSGALLI (L.) Beauv. Wet shores and waste places, common throughout.
- E. FRUMENTACEA (Roxb.) Link. Occasionally persistent from cultivation, and sometimes sporadic in waste land.
- E. Walteri (Pursh) Nash. Swamps and salt marshes near the coast; Swampscott, Medford, Boston, Dorchester, Scituate.

### SETARIA.

- S. GLAUCA (L.) Beauv. Fields and waste places, common throughout.
- S. ITALICA (L.) Beauv. Introduced in waste places from cultivation, frequent. A variable species, the variations of which are now being studied.
- S. VERTICILLATA (L.) Beauv. Waste land; Newburyport, Salem, Charlestown, Cambridge, Boston, Dorchester.
- S. VIRIDIS (L.) Beauv. Fields and waste places, common throughout.

# CENCHRUS.

C. CAROLINIANUS Walt. In sandy soil and waste places, apparently introduced; at ten scattered stations.

#### ZIZANIA.

- Z. aquatica L. Wet borders of Concord and Charles Rivers and their tributaries, in Lowell, Wayland, Framingham, Newton, Wellesley, Needham, Medfield. An uncommon species in our region.
  - Z. palustris L. Rivers and ditches; frequent throughout.

#### LEERSIA.

- L. oryzoides (L.) Sw. Wet places, common throughout.
- L. oryzoides (L.) Sw., forma glabra A. A. Eaton. "Tidal shores of the Merrimac river near 'the laurels' in the western part of Newbury-port" (A. A. Eaton, Sept., 1902; A. A. Eaton & M. L. Fernald, Oct. 2, 1902, specimens in herb. N. E. Botanical Club). See Rhodora v. 118, 1903.
- L. virginica Willd. Moist woods, occasional from Walpole northward.

#### PHALARIS.

- P. arundinacea L. Swamps, marshes and pond margins, locally abundant. No reports from southeastern portion of district.
- P. arundinacea L., var. Picta L. Persistent and occasionally spreading from old gardens; apparently native in Stoughton (S. F. Blake, June 15, 1912).
- P. CANARIENSIS L. Waste places and dumps around cities and towns, occasional.

#### ANTHOXANTHUM.

- A. odoratum L. Fields, pastures and roadsides; very common throughout.
- A. Puelli Lecoq & Lamotte. South Boston (C. E. Perkins, June 25, 1879); Jamaica Plain [W. Roxbury] (E. & C. E. Faxon, July 8, 1883); Milton (G. G. Kennedy, June 27, 1897).

# HIEROCHLOË.

**H. odorata** (L.) Wahlenb. Meadows and marshes, both brackish and fresh; common along the coast, inland on the Concord and Shawsheen Rivers; meadow, frequent, Wellesley (K. M. Wiegand, May, 1912).

# ORYZOPSIS.

- O. asperifolia Michx. Dry open woods, frequent.
- O. pungens (Torr.) Hitchc. Dry sandy fields, and open woods, frequent throughout.
- O. racemosa (Sm.) Ricker. Dry rocky woods, rare; Georgetown, Essex, Malden, Woburn. "Melrose (Wm. Boott; specimen in herb. of)." according to Dame & Collins, Fl. Middlesex Co. 126, 1888, as Oryzopsis melanocarpa Muhl.

# STIPA.

S. avenacea L. Dry open woods, rare; Wakefield, Woburn, Malden, Medford, Milton.

#### ARISTIDA.

- A. dichotoma Michx. Dry sandy soil, common throughout.
- A. gracilis Ell. Sandy soil, frequent from Hingham and Sharon northward.
- A. purpurascens Poir. Dry sandy soil, scattered stations, throughout.
- A. tuberculosa Nutt. Plum Island (J. Robinson, Aug. 31, 1876); Ocean Spray, Winthrop (H. A. Young, Sept. 28, 1878); Winthrop (C. E. Perkins, Sept. 6, 1882); Winter Pond, Winchester (C. E. Perkins, Sept. 6, 1882). The last reference is probably an error, since this species is ordinarily confined to coastal sands, and Perkins collected it on September 6, 1882, at Winthrop, as cited above. This is the same date that appears with the specimen said to come from Winter Pond. The field-label accompanying the Winthrop material is in Perkins's own hand, but the material labelled "Winter Pond" is marked in another hand, presumably through a confusion of labels.

#### MUHLENBERGIA.

- M. capillaris (Lam.) Trin. Hingham, rare (T. T. Bouvé, no date; J. R. Churchill, Oct. 5, 1887). We know of only two other records of this species from New England, namely, Hamden and New Haven, Connecticut. See Flowering Plants and Ferns of Connecticut, Conn. Bot. Society, 62, 1910.
- M. foliosa Trin. Moist soil; Andover, Lawrence, Dracut, Groton, Marlboro, Wellesley, Natick.
  - M. mexicana (L.) Trin. Woods and thickets; frequent.
- M. racemosa (Michx.) BSP. Meadows and low ground; occasional from Blue Hills and Walpole northward.
- M. Schreberi J. F. Gmel. Roadsides and fields, introduced around towns and cities, perhaps native in some places. Scattered stations from Braintree and Wellesley northward.
- M. sobolifera (Muhl.) Trin. Rocky woods and ledges; occasional from the Blue Hills and Needham northward.
- M. sylvatica Torr. Damp woods and roadsides; occasional from the Blue Hills northward.
- M. tenuiflora (Willd.) BSP. Damp rocky woods; ten stations, from Blue Hills northward.

#### BRACHYELYTRUM.

B. erectum (Schreb.) Beauv. Moist woods, occasional.

#### HELEOCHLOA.

H. SCHOENOIDES (L.) Host. Made land, South Boston flats, very abundant.

#### PHLEUM.

P. PRATENSE L. Fields and roadsides, very common throughout.

## ALOPECURUS.

- A. Agrestis L. Adventive in waste places; Lowell, Charlestown, Boston, South Boston.
- A. geniculatus L. Moist soil, occasional from Norwood northward.

- A. geniculatus L., var. aristulatus Torr. Wet places, from Hingham, Dorchester and Natick northward; also on shore of Massapoag Lake, Sharon (S. F. Blake, June 26, 1911).
- A. PRATENSIS L. Fields and meadows, generally introduced and abundant.

# SPOROBOLUS.

- S. asper (Michx.) Kunth. Dry sand and gravel; Ipswich, Danvers, Medford, Somerville, Boston, Dorchester, Duxbury; Hingham, according to T. T. Bouvé, Botany of Hingham, in History of the town of Hingham i. pt. 1, 134, 1893.
- S. cryptandrus (Torr.) Gray. Sandy and gravelly soil at numerous stations along the coast; also at Lowell, Dracut, and Winter Pond, Winchester.
- S. uniflorus (Muhl.) Scribn. & Merr. Meadows and bogs, common throughout.
- S. vaginiflorus (Torr.) Wood. Dry sterile soil; common throughout.

## AGROSTIS.

- A. alba L. Dry and moist soil; not reported from southeast, but common elsewhere.
- A. alba L., var. aristata Gray. Meadows and moist places; Ips-wich, Woburn, Melrose, Medford, Carlisle, Newton, Dorchester.
- A. alba L., var. maritima (Lam.) G. F. W. Mey. Moist soil; Gloucester, Revere, Saugus, Stoneham, Charlestown, Boston, Hingham.
- A. alba L., var. vulgaris (With.) Thurb. Fields and meadows, common throughout.
- A. antecedens Bicknell. (Bull. Torr. Bot. Club xxxv. 473-475, 1908). West Boston dump (C. W. Swan, June 27, 1881, specimen in herb. Yale University). Common on Nantucket and Long Island.
- A. CANINA L. Meadows and damp places; occasional in central and northern portion of district.
- A. hyemalis (Walt.) BSP. Moist and dry soil, common throughout.
  - A. perennans (Walt.) Tuckerm. Woods, common throughout.

#### GASTRIDIUM.

G. Australe Beauv. In wool waste, Lowell and Billerica (C. W. Swan, July 24, 1883); S. Boston (C. E. Perkins, July 20, 1882). A native of Europe, but probably adventive here from California, where it is naturalized (Dame & Collins, Fl. Middlesex Co. 127, 1888).

## POLYPOGON.

P. Monspeliensis (L.) Desf. Waste places, rare; North Chelmsford, Lowell, Dracut, Billerica, Charlestown, Boston, South Boston.

#### CALAMAGROSTIS.

- C. canadensis (Michx.) Beauv. Swamps and wet places, common throughout. A peculiar form of this species collected in Boxford, August 6, 1899, by E. F. Williams was sent to Mrs. Chase and has been returned by her with the following note, dated April 23, 1913; "The loose panicle of long slender branches, and the long callus hairs indicate C. canadensis with which the specimen agrees perfectly except in having spikelets scarcely 2.5 mm. long. I do not find any specimens with spikelets quite so small as this, but there are a number with spikelets less than 3 mm. These are from Saskatchewan, Montana, Wisconsin, and District of Columbia, showing no geographical limitation."
- C. cinnoides (Muhl.) Barton. Low thickets and borders of woods, never abundant; occasional in other parts of district, but not reported from west or southwest.
- C. Pickeringii Gray. Meadow north of Haggett's Pond, Andover (J. Robinson, June 26, 1878; June 27, 1879; June 26, 1880); swamps, Andover (J. H. Sears, September, 1880); meadows along Fish Brook, Andover (A. S. Pease, July 27, 1903; July 7, 1904); sandy bank, Wilmington (E. F. Williams, June 11, 1899).

#### AMMOPHILA.

A. arenaria (L.) Link. Sand-dunes and beaches along the coast, common.

#### APERA.

A. SPICA-VENTI (L.) Beauv. Made land, S. Boston (C. E. Perkins, July 1, 1878 and July 5, 1881; E. & C. E. Faxon, Oct. 5, 1878 and July 3, 1879); "in a field at West Newbury (W. P. Conant)" according to Robinson, Fl. Essex Co. 123, 1880 (as Agrostis Spica-venti L.).

## CINNA.

C. arundinacea L. River borders, swamps and wet woods; common elsewhere, but not reported from the extreme south.

[C. latifolia (Trev.) Griseb. "Lawrence, Danvers (J. H. Sears); West Newbury (W. P. Conant) etc." according to Robinson, Fl. Essex Co. 124, 1880, as C. arundinacea, L., var. pendula, Gray. There are no specimens in the Peabody Academy of Science.]

#### HOLCUS.

H. LANATUS L. Fields and meadows, very common throughout.

#### SPHENOPHOLIS.

- S. nitida (Spreng.) Scribn. Woods, rare; Melrose, Malden, Wellesley, Canton, Randolph.
- S. obtusata (Michx.) Scribn. Dry shaded ledges north of Crooked Pond, Boxford (A. S. Pease, June 27, 1912); West Boston flats (C. W. Swan, June 27, 1881 and June 25, 1882); Blue Hill, Milton (E. & C. E. Faxon, no date); "Concord (E. S. Hoar; specimen in herb. of); Watertown (Bigelow's Fl. Bost., under Aira truncata, Muhl.)" according to Dame & Collins, Fl. Middlesex Co. 129, 1888, as Eatonia obtusata Gray.
- S. pallens (Spreng.) Scribn. Meadows and ditches, rare; nine stations from Blue Hills northward (1877–1896).
- S. pallens (Spreng.) Scribn., var. major (Torr.) Scribn. Danvers (J. H. Sears, June 4, 1879, specimen in herb. Peabody Academy of Science).
- S. palustris (Michx.) Scribn. Swamps and meadows; Andover (A. S. Pease, June 8, 1903); "well meadow head," Concord (H. D.

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Thoreau, June 19, 1859); "Heywood meadow near R. R. spring in brush," Concord (H. D. Thoreau, June 29, 1859); Needham (T. O. Fuller, June 9–10, 1887); Purgatory Swamp, Norwood (C. E. Faxon, June 17, 1879; C. W. Swan, June 17, 1882; E. F. Williams, June 22, 1896 and June 4, 1899).

# TRISETUM.

T. spicatum (L.) Richter. Andover (J. Blake, June 26, 1882); rocky bank of Merrimac and sandy wood-road near Pomp's Pond, Andover (A. S. Pease, Sept. 19, 1903; June 4 and 20, 1904); Bateman's Pond, Concord (C. W. Swan & C. W. Jenks, July 6, 1888).

#### DESCHAMPSIA.

- **D. caespitosa** (L.) Beauv. Shore of Haggett's Pond, Andover (C. H. Knowlton, June 20, 1903); shore of Merrimac River, Dracut and Lowell (C. W. Swan, July 20, 1882); introduced on land of J. R. Churchill, Dorchester (J. R. Churchill, 1884 to date); Chelmsford (C. W. Swan) according to Dame & Collins, Fl. Middlesex Co., 128, 1888.
- D. flexuosa (L.) Trin. Dry ground; not reported from western and southwestern towns, but frequent elsewhere.

#### AVENA.

A. HIRSUTA Roth. South Boston dump (C. W. Swan, June 6, 1886). "Habitat passim in Europae cultis," according to Roth, Catalecta Botanica iii. 19, 1806. Specimen in herb. Yale University.

A. Hybrida Koch. Brickyard, Newburyport (E. F. Williams, July 31, 1898). An Old World species. Specimen in herb. N. E. Botanical Club.

A. SATIVA L. Fields, roadsides and waste places, frequent throughout.

# ARRHENATHERUM.

A. ELATIUS (L.) Beauv. Fields and roadsides, occasional.

# DANTHONIA.

- D. compressa Aust. Dry ground, mostly in open woods; frequent, especially southward.
  - D. spicata (L.) Beauv. Dry places, common throughout.

#### SPARTINA.

- S. glabra Muhl., var. alterniflora (Loisel.) Merr. Salt marshes, frequent along the coast.
- S. glabra Muhl., var. pilosa Merr. Salt marshes, abundant along the coast.
- S. Michauxiana Hitchc. Wet shores and marshes, both salt and fresh; frequent, especially on the coast.
  - S. patens (Ait.) Muhl. Salt marshes, abundant along the coast.
- S. patens (Ait.) Muhl., var. caespitosa (A. A. Eaton) Hitchc. Causeway, Salisbury (A. A. Eaton, Sept. 2, 1898); Plum Island (A. A. Eaton, Aug. 29, 1896); Newbury (A. A. Eaton, August, 1897).
- S. patens (Ait.) Muhl., var. juncea (Michx.) Hitchc. Edges of salt marshes, occasional; Ipswich, Revere, Cambridge, Boston, Dorchester.

### CYNODON.

C. Dactylon (L.) Pers. South Boston flats (C. E. Perkins, Aug. 25, Sept. 2 and Oct. 3, 1879; Sept. 5, 1881).

# CHLORIS.

C. Elegans HBK. South Boston flats (C. E. Perkins, Aug. 2, 1882). Native of Texas and northern Mexico.

#### BOUTELOUA.

- B. GRACILIS (HBK) Lag. Made land, South Boston flats (C. E. Faxon, Oct. 5, 1878). Native of northwestern Canada, western United States and Mexico.
  - [B. oligostachya (Nutt.) Torr. "Near the old carpet factory,

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Tapleyville, 1880" (J. H. Sears & J. Robinson) according to Robinson, Fl. Essex Co. 125, 1880. No specimen seen.]

B. RADICOSA (Fourn.) Griffiths. South Boston flats (C. E. Perkins,

1882). Native of southwestern United States and Mexico.

B. TEXANA Watson. South Boston flats (C. E. Perkins, Aug. 2, 1882). Native of Texas and Mexico.

# DACTYLOCTENIUM.

D. AEGYPTIUM (L.) Richter. Cotton waste from mills, Malden (F. S. Collins, Aug. 19, 1888; F. S. Collins & C. W. Swan, Sept. 14, 1888).

#### ELEUSINE.

E. Indica Gaertn. Waste places, rare; Salem, Lowell, Reading, Malden, Boston, South Boston.

# LEPTOCHLOA.

L. FASCICULARIS (Lam.) Gray. Adventive, Boston (C. W. Swan, Sept. 17 and 19, 1887, specimens in herb. Yale University and in herb. Walter Deane.

L. FILIFORMIS (Lam.) Beauv. Cotton waste from mills, Lowell (C. W. Swan, Aug. 16 and Sept. 6, 1883); Malden (F. S. Collins,

Sept. 25, 1887; F. S. Collins & C. W. Swan, Sept. 14, 1888).

L. IMBRICATA Thurb. Woollen mill waste, N. Billerica (C. W. Swan, Sept. 18, 1885, specimens in herb. Yale University and N. E. Botanical Club). Native of Arizona.

# PHRAGMITES.

P. communis Trin. Wet places near the coast, becoming more frequent southward; inland at Andover and S. Lincoln.

#### TRICUSPIS.

T. flava (L.) Hubbard. (Tridens flavus (L.) Hitchc. Gray's Manual, 7th ed. See Hubbard, Rhodora xiv. 185-6, 1912). Campus lawns, Wellesley (K. M. Wiegand, Sept. 16, 1910); abundant in old fields, Southboro (A. J. Eames, August, 1909).

# TRIPLASIS.

T. purpurea (Walt.) Chapin. Sandy places; Salisbury, Ipswich, Winthrop, Winchester, Dorchester, Hingham. "Nahant beach" according to Robinson, Fl. Essex Co. 125, 1880.

## ERAGROSTIS.

- **E. capillaris** (L.) Nees. Dry sand and gravel; Essex, Andover, Lowell, Malden, Needham, Canton; "observed by myself in sunny situations in the environs of Salem, chiefly about cultivated ground," according to C. Pickering, Chronological History of Plants, 810, 1879.
- E. MEGASTACHYA (Koeler) Link. Waste ground and roadsides; abundant around Boston, occasional elsewhere.
- E. Minor Host. Waste places rare; Westford, Lowell, Cambridge, Boston, Roxbury, Dedham, Hingham.
  - E. pectinacea (Michx.) Steud. Dry fields, common throughout.
- **E. pectinacea** (Michx.) Steud., var. **spectabilis** Gray. Near Kimball's Pond, Amesbury (A. A. Eaton, 1895); Andover (A. S. Pease, Sept. 22, 1901); Tewksbury (A. S. Pease, Sept. 17, 1903); Hingham, according to T. T. Bouvé, Botany of Hingham, in History of the town of Hingham i. pt. 1, 135, 1893.
  - E. pilosa (L.) Beauv. Gravel and sand; common and abundant.

Notes and corrections on the preceding list. On page 56, lines 5 and 6 should be deleted. The reference to *Panicum Ashei* is an unintentional repetition, under a now discarded name, of what is duly entered, on page 59, under *P. umbrosum*.

On page 56, line 18, for known read recorded.

C. H. KNOWLTON
S. F. BLAKE
On
WALTER DEANE

Committee

Local Flora.